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English Abstract for Japanese Patent 55-46535

METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE

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ABSTRACT

PURPOSE: To improve the tight fitting property of films of a metal of high melting point or a silicide thereof to a semiconductor substrate or an insulating film, by separately coating the films at several times and continuously treating these films with heat at each time of coating.

CONSTITUTION: An insulating film 2 is provided on the surface of a semiconductor substrate 1 of an electroconductive type. A part of the film 2 is removed so that a thin insulating film 3 is provided and a shaped workpiece is obtained. A metal of high melting point or a silicide thereof is coated at a thickness less than a prescribed value on the substrate 1. The films and the substrate are then continuously treated with heat under an atmosphere of inert gas. Coating and heat treatment are thereafter repeated so that a metal film 4 of the metal or the silicide thereof is produced at a desired thickness. A gate electrode film 5, a source region, a drain region, a source electrode 12, a gate electrode 13 and a drain electrode 14 are then produced by conventional methods. This results in improving the tight fitting property of the metal of high melting point or the silicide thereof to the semiconductor substrate or the insulating film and in enabling high-speed operation and high-degree integration based on self-arrangement.